

March 22, 2010



U.S. Department  
of Transportation

East Building, PHH-30  
1200 New Jersey Avenue S.E.  
Washington, D.C. 20590

**Pipeline and Hazardous  
Materials Safety Administration**

DOT-SP 7765  
(TWENTIETH REVISION)

**EXPIRATION DATE:** February 28, 2014

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Carleton Technologies, Inc.  
Orchard Park, NY
2. PURPOSE AND LIMITATIONS:
  - a. This special permit authorizes the transportation in commerce of certain compressed gases in non-DOT specification pressure vessels. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
  - b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce.
  - c. Party status will not be granted to this special permit.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.302a(a)(4) in that a non-DOT specification cylinder is not authorized, except as specified herein.
5. BASIS: This special permit is based on the application of Carleton Technologies Inc. dated February 5, 2010, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Material Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Argon, compressed	2.2	UN1006	N/A
Helium, compressed	2.2	UN1046	N/A
Nitrogen, compressed	2.2	UN1066	N/A

**NOTE:** A missile gas storage system or component which contains a quantity of pyrotechnic materials must be classed and approved as provided for in § 173.56. If the pyrotechnic material augments the volume of the gas in the cylinder, or in any way enhances the performance of the compressed gas, the device must be tested in the same configuration as when shipped.

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a limited life, non-DOT specification packaging, described as a missile gas storage system, consisting of a welded steel sphere, and an electric squib containing a Division 1.4 explosive. The packaging must comply with U.S. Army Drawing no. MCD 13308130, Rev. C; MCD 13308162, MCD 13308164 and MCD 13308160, submitted with Carleton Controls Corporation's application of February 13, 1979, or comply with drawings 3385-0001 and 3385-0002, submitted with Carleton Group's letter of November 30, 1982, or comply with drawing B40427 or B40450 submitted with Carleton Technologies Inc.'s letter of April 21, 1994 or comply with drawing B41707 or B41702 submitted with Carleton Technologies Inc.'s letter of April 24, 1997, or comply with drawing B42107 or B42100 submitted with Carleton Technologies Inc.'s letter of April 14, 1998, or comply with drawing B42796 submitted with Carleton Technologies Inc.'s letter of November 15, 1999, or comply with drawing B44529 or B44544 submitted with Carleton Technologies Inc.'s letter of February 27, 2002, or comply with drawing B45808 submitted with Carleton Technologies Inc.'s letter of May 18, 2004, and tested as described in

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the specification on file with the Office of Hazardous Materials Special Permits and Approvals (OHMSPA) and in compliance with DOT Specification 39 § 178.35 and § 178.65 except as follows:

§ 178.65(a)(1) - Maximum size may not exceed 55 cu. in. Maximum service pressure may not exceed 8,900 psig at 70°F.

§ 178.65(b) - The material must be one of the following heat treatable steels: Maraging 250, Carpenter custom 455 or PH 13-8 MO steels.

§ 178.65(c)(4) - Add: All welds must be 100 percent radiographically inspected.

§ 178.65(f)(1) - Each cylinder must be tested at an internal pressure of at least 1.5 times the test pressure and must be held at that pressure for at least 30 seconds.

§ 178.65(f)(2) - One cylinder taken from the beginning of each lot and one from each 250 or less successively produced within the lot thereafter, must be hydrostatically tested to 2.22 times the test pressure without failure.

§ 178.65(f)(2)(i) - A failure occurs at a gauge pressure less than 2.22 times the test pressure.

(f)(2)(ii), (f)  
(2)(iii) and                      Not applicable.  
(f)(2)(iv)

(f)(3)                                      \*      \*      \*

(f)(4)                                      Spheres tested per § 178.65(f)(2)  
must be scrapped.

§ 178.65(g) - Flattening test must be performed on one cylinder taken from the two successive production lots heat treated within three weeks. The number of cylinders in a lot (see § 178.65(f)(2)) may not exceed 250.

§ 178.65(g)(3)                                      \*      \*      \*  
Add: Flattening between flat plates  
is authorized.

§ 178.65(g)(4) - Cylinders or test rings may not crack when flattened so their outer surfaces are not more than ten times wall thickness apart.

§ 178.65(h)(3) - Prohibited for welded cylinders except as follows:

Reheat treatment is limited to the 127 cylinders with the part number B45808-1 and in the serial number range of 32916 to 33045 (less 33032, 33038 and 32942). Two sample cylinders from the reheated lot must be subjected to a flattening test and a burst test. The test results must be submitted to the Office of Hazardous Materials Special Permits and Approvals (OHMSPA). The entire lot of reheated cylinders must be condemned if the sample cylinders do not pass.

§ 178.65(i)(2)(i) - Cylinders must be marked "DOT-SP 7765" instead of "DOT-39".

b. OPERATIONAL CONTROLS:

(1) Cylinders must be shipped in strong outside packagings in accordance with § 173.301(a)(9).

(2) Each cylinder may be filled a maximum of 10 times to a pressure not exceeding 8,900 psig, provided each is inspected and proof tested to 1.5 times the test pressure prior to filling.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modification or change is made to the package and it is reoffered for transportation in conformance with this special permit and the HMR.

b. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.

c. The completely assembled unit must qualify under the test criteria used in CGA Pamphlet S-1.1, Pressure Relief

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Device Standards, Part 1.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel and cargo only aircraft.
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel, aircraft or motor vehicle used to transport packages covered by this special permit. The shipper must furnish a current copy of this special permit to the air carrier before or at the time the shipment is tendered.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
  - o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
  - o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
  - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) - 'The Hazardous Materials Safety and Security Reauthorization Act of 2005' (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 - Immediate notice of certain hazardous materials incidents, and 171.16 - Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for Dr. Magdy El-Sibaie  
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at [http://hazmat.dot.gov/sp\\_app/special\\_permits/spec\\_perm\\_index.htm](http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm) Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

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